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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,225	02/26/2004	Hans Sjostrand	000254.00038	2834
22907	7590	09/10/2007	EXAMINER	
BANNER & WITCOFF, LTD. 1100 13th STREET, N.W. SUITE 1200 WASHINGTON, DC 20005-4051			ZHOU, YONG	
			ART UNIT	PAPER NUMBER
			2609	
			MAIL DATE	DELIVERY MODE
			09/10/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/786,225

**Applicant(s)**

SJOSTRAND, HANS

**Examiner**

Yong Zhou

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1)  Responsive to communication(s) filed on \_\_\_\_\_.
- 2a)  This action is **FINAL**.                      2b)  This action is non-final.
- 3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4)  Claim(s) 1-11 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5)  Claim(s) \_\_\_\_\_ is/are allowed.
- 6)  Claim(s) 1-11 is/are rejected.
- 7)  Claim(s) \_\_\_\_\_ is/are objected to.
- 8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9)  The specification is objected to by the Examiner.
- 10)  The drawing(s) filed on 26 February 2004 is/are: a)  accepted or b)  objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \*    c)  None of:
1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)
- 2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3)  Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 2/26/2004.
- 4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5)  Notice of Informal Patent Application
- 6)  Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by IETF Request for Comments 3220 (referred to as "RFC-3220" hereinafter).

Regarding **claim 1**, RFC-3220 teaches a method for decoupling a Mobile IP home network from its Mobile IP Home Agent (virtual network, p24, 2nd para., lines 1-2) with support for roaming (p6, para. before Sec 1.6, lines 3-5) on the intranet as well as the Internet, characterized in the normal operation of the IGP is assumed (router, e.g., a home agent, p9, 6th para., lines 3-5, the IGP type of routing protocols are among well known routing protocols), and that a static route for a Mobile Address aggregate is used to distribute Mobile IP addresses in the IGP (p6, para. before Sec 1.6, lines 1-3).

Regarding **claim 2**, RFC-3220 further teaches that the IGP is used for directing traffic to the HA for Mobile Clients that are roaming outside their Mobile Home Network (p10, last para., lines 1-4).

Regarding **claim 3**, RFC-3220 further teaches that the proxy ARP function of the default gateway is used for directing traffic in the Mobile Home Network to the HA for

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the Mobile Clients that are roaming outside their Mobile Home Network (p69, 3<sup>rd</sup> para., lines 1-3).

Regarding **claim 4**, RFC-3220 further teaches that the Mobile IP registrations are redistributed to the IGP in order to direct traffic to the HA for the Mobile Clients that are roaming outside their Mobile Home Network (p64, 6<sup>th</sup> para., lines 1-2).

Regarding **claim 5**, RFC-3220 further teaches that the traffic is directed toward the HA instead of the Mobile Address aggregate using host routes (p42, 1st para., lines 1-2).

Regarding **claim 6**, RFC-3220 further teaches that the Mobile IP registrations are redistributed to the IGP in order to direct traffic to the HA (p64, 6<sup>th</sup> para., lines 1-2).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over RFC-3220 in view of Wang (US 2004/0114559).

Regarding **claim 7**, RFC-3220 teaches all the limitations of claim 1.

RFC-3220 does not specifically teach that the Mobile Client deregisters over several IP router hops to the Mobile IP Home Agent.

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Wang teaches that the Mobile Client deregisters over several IP router hops to the Mobile IP Home Agent ([0033], lines 11-12).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify RFC-3220 invention to include the deregistration by the Mobile Client over several IP router hops to the Mobile IP Home Agent as taught by Wang to achieve predictable results of IP mobility.

Regarding **claim 8**, RFC-3220 further teaches that the Mobile Home Agent verifies that the Client is located in the Mobile Home Network by the source address of the Mobile IP registration request (p59, Sec 3.8.3.1, 6<sup>th</sup> para., line 4, and 7<sup>th</sup> para, lines 1-3).

Regarding **claim 9**, RFC-3220 further teaches that the Mobile client detects that it is in the Mobile Home Network by using DHCP options and IRDP Router Advertisements (p10, 8th para, lines 3-5, and p27, last para, lines 1-3).

5. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over RFC-3220 in view of Khosravi (US Patent Application No. 2003/0039245).

Regarding **claim 10**, RFC-3220 teaches all the limitations of claim 1.

RFC-3220 does not specifically teach that the Home Agent utilizes an IGP route injector and MAC layer redirect per physical interface for shared deployment scenarios where an address overlap between the physical networks hosting the virtual home networks may exist.

Khosravi teaches that the Home Agent utilizes an IGP route injector and MAC layer redirect ([0042], line 12, and [0052], line 13) per physical interface for shared

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deployment scenarios where an address overlap between the physical networks hosting the virtual home networks may exist.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the RFC-3220 invention to utilize the IGP route injector and MAC layer redirect as taught by Khosravi to achieve predictable results of supporting IP mobility.

Regarding **claim 11**, RFC-3220 further teaches that the Home Agent in its home session table keep track of the interface and gateway MAC address over which the registration from the Mobile Node came (mobility binding, p54, Sec 3.8.1, 2<sup>nd</sup> para., lines 3-4) in order to allow for overlapping care-of-addresses at visited networks.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Peirce et al. (US Patent No. 6,560,217) teach a method and system of virtual home agent service using software-replicated home agents.

Brown (US Patent Application No. 2002/0165980) teaches a method and system route table minimization.

7. Any Response to this Office should be **faxed** to (571) 273-8300 or **mailed to**:

Commissioner for Patents,  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses should be brought to**

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Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yong Zhou whose telephone number is (571) 270-3451.

The examiner can normally be reached on Monday - Friday 8:00am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benny Q. Tieu can be reached on (571) 272-7490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YZ

  
BENNY Q. TIEU  
SPE/TRAINER